



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

November 30, 2011

Mr. George Gellrich, Site Vice President
Constellation Energy Nuclear Group, LLC
Calvert Cliffs Nuclear Power Plant, LLC
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT – NRC EVALUATED
EMERGENCY PREPAREDNESS EXERCISE – INSPECTION REPORT NOS.
05000317/2011502 AND 05000318/2011502

Dear Mr. Gellrich:

On October 20, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the October 18, 2011, evaluated emergency preparedness exercise at your Calvert Cliffs Nuclear Power Plant. The enclosed inspection report documents the inspection results, which were discussed on October 20, 2011, with Mr. K. Robinson, Jr., Manager – Nuclear Safety and Security, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Trapp", is written above the typed name.

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

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Sincerely,

/RA/

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

SUNSI Review Complete: JMT (Reviewer's Initials)

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DATE	11/30/11	11/30/11	11/30/11				

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G. Gellrich

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Docket Nos.: 50-317, 50-318
License Nos.: DPR-53, DPR-69

Enclosure:
NRC Inspection Report Nos. 05000317/2011502 and 05000318/2011502

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 05000317, 05000318

License Nos.: DPR-53, DPR-69

Report Nos.: 05000317/2011502, 05000318/2011502

Licensee: Constellation Nuclear Generation

Facility: Calvert Cliffs Nuclear Power Plant

Location: 1650 Calvert Cliffs Parkway
Lusby, Maryland 20657-4702

Dates: October 17-20, 2011

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector,
Division of Reactor Safety (DRS), Region I (Lead)
M. Norris, Emergency Preparedness Specialist,
Office of Nuclear Security and Incident Response (NSIR)
J. D'Antonio, Senior Operations Inspector, DRS, Region I
B. Cecere, Emergency Preparedness Specialist, NSIR
C. Crisden, Emergency Preparedness Inspector, DRS, Region I

Approved by: James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000317/2011502 and 05000318/2011502; 10/17/2011 - 10/20/2011; Calvert Cliffs Nuclear Power Plant; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by three region-based and two headquarters-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

No findings were identified.

B. Licensee-Identified Findings

None.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 – 1 Sample)

a. Inspection Scope

Prior to the October 18, 2011, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which Constellation had submitted to the NRC, to determine if the exercise would test major elements of the Calvert Cliffs Emergency Plan as required by Title 10 of the *Code of Federal Regulations* (10 CFR) 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Constellation's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of Constellation's Calvert Cliffs emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Operations Support Center (OSC), Technical Support Center (TSC), Emergency Operations Facility (EOF), and the Joint Information Center (JIC).
- A review of other performance areas, such as: the Calvert Cliffs emergency response organization's (ERO) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Calvert Cliffs EP exercise inspection report and Constellation's Calvert Cliffs EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the October 18, 2011, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate Constellation's self-assessment of its ERO performance during the October 18, 2011, Calvert Cliffs exercise and to ensure compliance with 10 CFR Part 50, Appendix E, Section IV.F.2.g.

Enclosure

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, in August 2010, Constellation implemented various revisions of the different sections of the Calvert Cliffs Emergency Plan. Constellation had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The inspectors reviewed all emergency action level (EAL) changes that Constellation had made since August 2010, and conducted a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Calvert Cliffs EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Calvert Cliffs was conducted in the third quarter of 2010, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the third calendar quarter of 2010 through the third quarter of 2011, to verify the accuracy of the reported PI data. The review of these performance indicators (PIs) was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6.

This inspection activity represented the completion of three samples on an annual cycle.

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b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On October 20, 2011, the inspectors presented the results of this inspection to Mr. K. Robinson, Jr., Manager – Nuclear Safety and Security, and other members of the Constellation staff. No proprietary information was provided to the inspectors during this inspection.

Enclosure

ATTACHMENT
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

K. Robinson, Jr., Manager – Nuclear Safety and Security
M. Fick, Calvert Cliffs Emergency Preparedness Director

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Calvert Cliffs Nuclear Power Plant Site Emergency Plan (Revision 42)
Calvert Cliffs Nuclear Power Plant Emergency Plan Implementing Procedures
Calvert Cliffs Nuclear Power Plant October 18, 2011, Emergency Exercise Scenario Package
CNG-EP-1.01-1006, Drill and Exercise Scheduling and Preparation (Revision 0)
CNG-EP-1.01-1007, Evaluation and Documentation of Drills, Exercises and Classified Events (Revision 0)
Calvert Cliffs Nuclear Power Plant 2010-2010 Training Drill Reports
Calvert Cliffs Emergency Preparedness Drill Reports, January 2010 – September 2011
Condition Reports Generated from the October 18, 2011, Exercise

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Calvert Cliffs Nuclear Power Plant Emergency Plan (Revision 42)
CNG-NL-1.01-1011, 10 CFR 50.59/10 CFR 72.48 Applicability Determination, Screenings and Evaluations (Revision 2)
CNG-EP-1.01-1002, Control of Emergency Preparedness Program Activities (Revision 0)
CNG-EP-1.01-1004, 50.54(Q) Effectiveness Review (Revision 1)
All Calvert Cliffs 50.54(q) screenings performed July 2010-September 2011 (Screenings and evaluations 2010-52 through 2011-46)

Section 4OA1: Performance Indicator Verification

CNG-EP-1.01-1001, Emergency Preparedness Program Responsibilities and Oversight (Revision 1)
CNG-ML-1.01-1010, NRC and INPO Performance Indicator Reporting (Revision 5)
Alert Notification System PI data, July 2010 – September 2011
DEP PI data, July 2010 – September 2011
ERO Drill Participation PI data, July 2010 – September 2011

LIST OF ACRONYMS

ANS	Alert Notification System
CR	Condition Report
DEP	Drill and Exercise Performance
DRS	Division of Reactor Safety
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
JIC	Joint Information Center
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NSIR	Office of Nuclear Security and Incident Response
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center